



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/613,507

07/03/2003

Eugene Feinberg

8009-17

4811

22150 7590 09/12/2008  
F. CHAU & ASSOCIATES, LLC  
130 WOODBURY ROAD  
WOODBURY, NY 11797

EXAMINER

SAINDON, WILLIAM V

ART UNIT

PAPER NUMBER

3623

MAIL DATE

DELIVERY MODE

09/12/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/613,507	<b>Applicant(s)</b> FEINBERG ET AL.	
	<b>Examiner</b> William V. Saindon	<b>Art Unit</b> 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,8,11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,8,11 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. The following FINAL Office Action is in response to Applicant's response received June 30, 2008. Claims 1-4, 6, and 8 have been amended. Claims 5, 7, 9, and 10 have been canceled. Claims 11 and 12 have been added. Therefore, claims 1-4, 6, 8, 11, and 12 are pending.

### *Response to Amendment*

2. The 35 USC § **101 rejection** of claims 1-4, 6, 8, 11, and 12 is **not withdrawn** in light of Applicant's amendments. While Applicant has amended the claims to provide a "useful, concrete, and tangible" result, the claims preempt all uses of the algorithm. Please refer to the § 101 rejection below.

3. The 35 USC § **112 ¶ 2 rejection** of claims 1-4, 6, 8, 11, and 12 is **not withdrawn** in light of Applicant's amendments. Please refer to the § 112 ¶ 2 rejection below.

4. The 35 USC § **102(a) rejection** of claims 1-4, 6, and 8 as unpatentable over Feinberg et al., "Sensor Resource Management for an Airborne Early Warning Radar," Proc. SPIE vol. 4728, Signal and Data Processing of Small Targets (April 2002) is **withdrawn** in light of Applicant's affidavit. The affidavit filed under 37 CFR 1.132 on June 30, 2008 is sufficient to overcome the rejection by showing the Feinberg et al. reference is the Applicant's own work.

***Response to Arguments***

5. The 35 USC § **103 rejection** of claims 1-4, 6, and 8 as unpatentable over Bar-Noy and Jones is **withdrawn** in light of Applicant's persuasive arguments.

***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. **Claims 1-4, 6, 8, 11, and 12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.** While Applicant has amended the claims to provide a "useful, concrete, and tangible" result, the claims preempt all uses of the algorithm. The method claimed as embodied in a computer readable medium is solely directed towards the described algorithm. It is not used in conjunction with other steps. Therefore, the claims pre-empt all substantially practical applications of the algorithm.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. **Claim 12 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.** The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to

Art Unit: 3623

one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The Examiner cannot find where in the specification the support for "each of the n jobs that is farthest from a corresponding theoretical probability" is found, nor has Applicant attempted to point out such a location.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. **Claims 1-4, 6, 8, 11, and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.** Several aspects of the claims are unclear:

**Claim 1:**

First, the relationship between the various "tests" put forth in the claims is not clear. Two separate tests appear to be used: a 'feasibility' test and a 'round robin' test. Listed after those two tests, but with no connection with whatsoever, are steps for determining a feasible schedule are performed. While one of ordinary skill could assume that there is some sort of IF-THEN relationship, such a relationship is not found in the claims, and one of ordinary skill would have to import limitations from the specification to make sense of the claims. Therefore, the claims are unclear.

Second, the step of "determining ... whether it is impossible to generate a feasible schedule" does not align with the rest of the claim, which is directed towards determining if there is a feasible schedule. Without importing limitations from the

Art Unit: 3623

specification not found in the claims, one of ordinary skill would not know how this step correlates with the rest of the claim.

Third, the step of "calculating a theoretical probability" is not clear with only the explanation that it is "a probability that a job will be performed next." Without importing limitations from the specification not found in the claims, one of ordinary skill would not know what conditions to satisfy to determine whether a job would be performed next or not.

Fourth, the step of "calculating an actual probability" is not clear with only the explanation that it is "a relative amount of time that each job is to be performed." Without importing limitations from the specification not found in the claims, one of ordinary skill would not know what conditions to satisfy to determine the relative amount of time that each job is to be performed.

Fifth, the step of "creating a potential schedule" is not clear with only the explanation that it is "based on the theoretical probabilities and the actual probabilities." Without importing limitations from the specification not found in the claims, one of ordinary skill would not know what basis to combine the theoretical probabilities and theoretical probabilities to somehow create a schedule.

Sixth, the step of "searching for the feasible schedule ... from the potential schedule" is not clear. Is more than one potential schedule created? Or, is the potential schedule really a bunch of schedules? Further, the search does not indicate if any criteria are used to spot the feasible schedule.

**Claim 4:** It is not clear what the variables "z" and "k" represent, or what a "residual vector" is.

**Claim 6:** Does the array contain the theoretical probability for *each* of the n jobs?

**Claims 11 and 12:** The claim recites a "computer system" but claims 1 and 8 do not have a computer system.

**Claim 12:** It is not clear what "farthest from a corresponding theoretical probability" means.

### ***Conclusion***

12. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 3623

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William V. Saindon whose telephone number is (571)270-3026. The examiner can normally be reached on M-F 7:30-5; alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/wvs/

/Jonathan G. Sterrett/

Primary Examiner, Art Unit 3623